

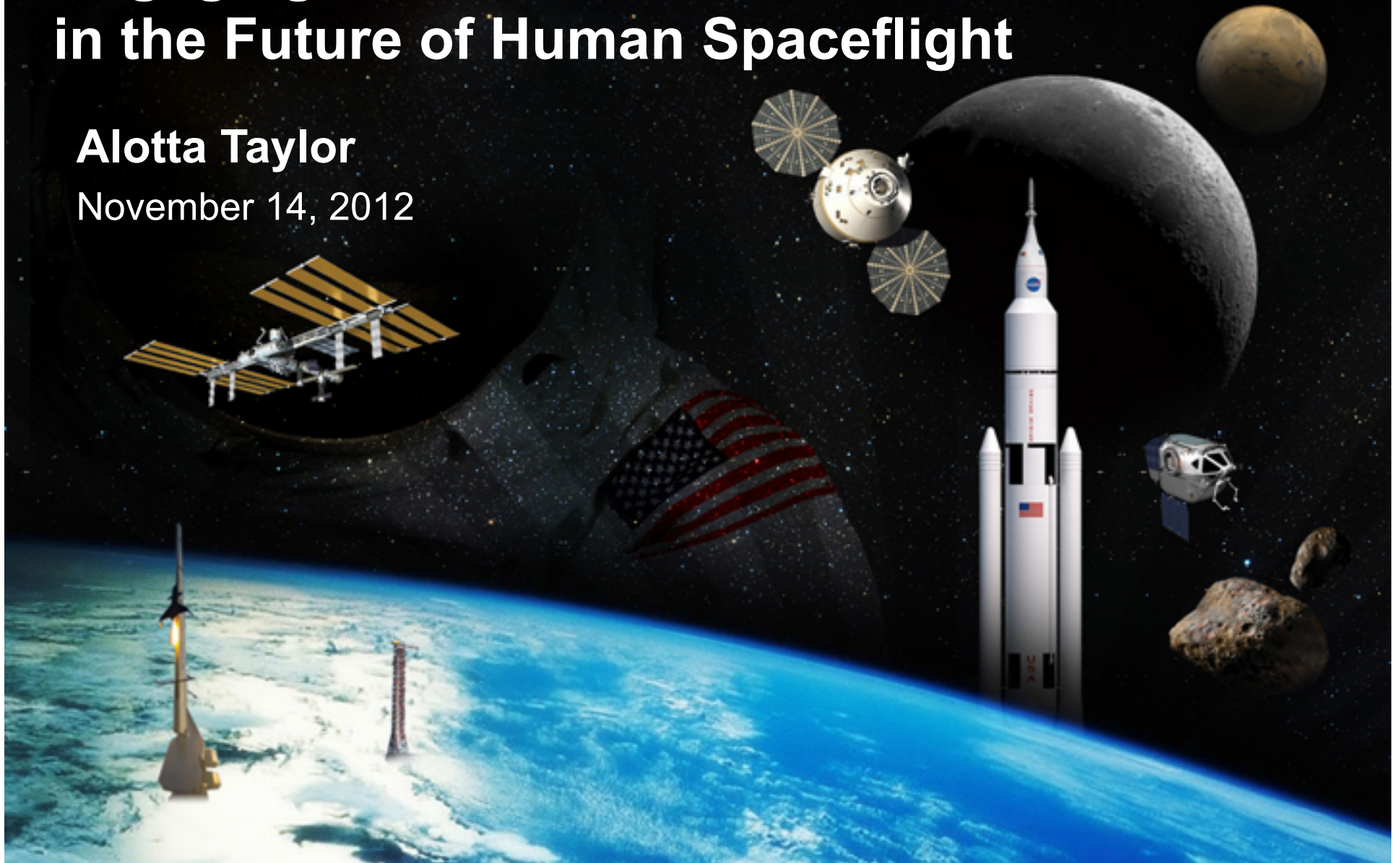
National Aeronautics and Space Administration



Engaging the Public in the Future of Human Spaceflight

Alotta Taylor

November 14, 2012



Agency Aligned Communications and Education Goals



AGENCY GOAL 5 & 6:

Enable program and institutional capabilities to conduct NASA's aeronautics and space activities.

To share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation, and contribute to a strong national economy.



DIRECTORATE GOALS:

- Increase public awareness of the marvels associated with ISS, including world-class research/technology advancements and tangible daily benefits to humanity
- Articulate meaningful, exciting and viable missions and uses for SLS and Orion MPCV as part of a capability-driven approach to multi-destination human spaceflight exploration
- Engage the public and Congress in understanding the reasons for exploration in a way that is exciting to young people

It's more important than ever to engage the public.

We have been very busy...

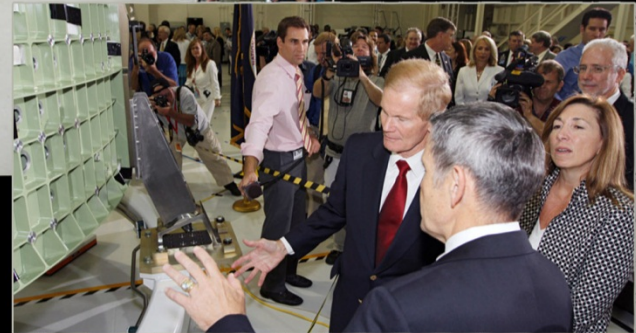
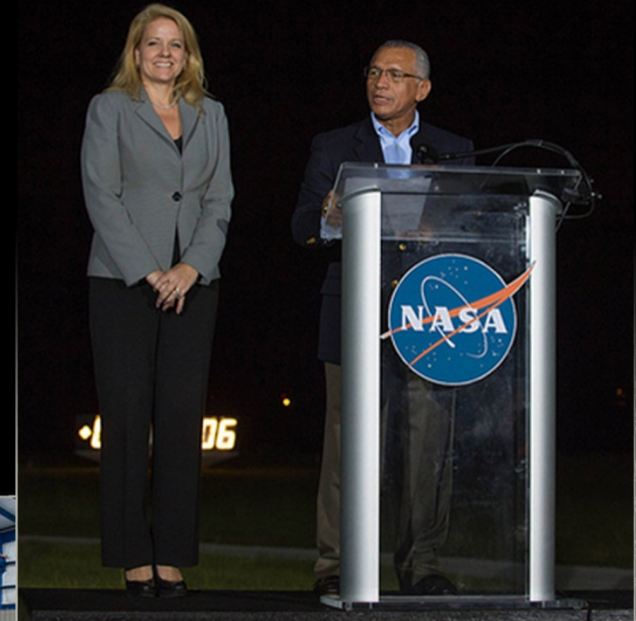
Traditional Media



Online and TV News



*Events,
Speaking
Engagements,
and Interviews*

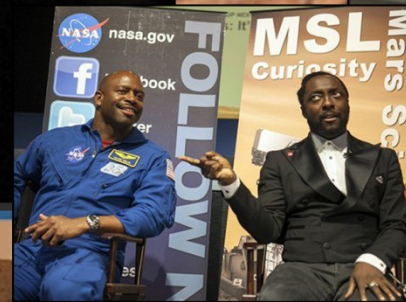


Connecting Scientific and Human Exploration



NASA Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California
COMING UP NO EARLIER THAN 11:15 pm PDT
Curiosity News Briefing
August 5, 2012

Mars Science Laboratory
Curiosity: Could Mars Have Once Harbored Life?



"This is an amazing achievement, made possible by a team of scientists and engineers from around the world..."

...President Obama has laid out a bold vision for sending humans to Mars in the mid-2030's, and today's landing marks a significant step toward achieving this goal." - **Charlie Bolden**

"Today, the wheels of Curiosity have begun to blaze the trail for human footprints on Mars..."

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This is one of the first images taken by NASA's Curiosity rover, which landed on Mars the evening of Aug. 5 PDT (morning of Aug. 6 EDT). Image credit: NASA/JPL-Caltech



Engineers at NASA's Jet Propulsion Laboratory in Pasadena, Calif., celebrate the landing of NASA's Curiosity rover on the Red Planet. The rover touched down on Mars the evening of Aug. 5 PDT (morning of Aug. 6 EDT). Image credit: NASA/JPL-Caltech

Full image and caption



Special Feature: USA Today



USA TODAY's 88-page special publication looks at America's future in space. Get an in-depth look at NASA's re-launch of a post-shuttle business and scientific model that will send humans deeper into space than ever before.



Web Communications



Interactive Features



International Space Station: Painting the World Green



Rocket Science 101



Commercializing Space



The Future of Human Spaceflight



Global Exploration Roadmap Interactive Tool 11.04.11



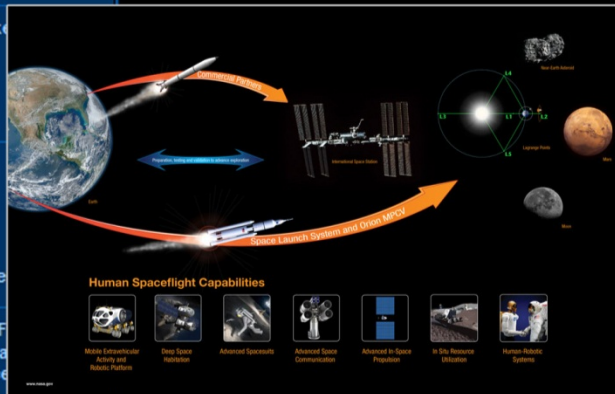
International Space Station Live! →



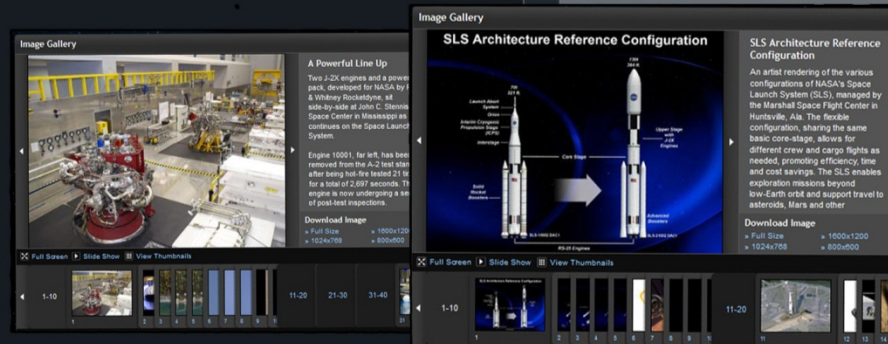
NASA 3D Virtuality 02.15.11

[View More Interactive Features](#)

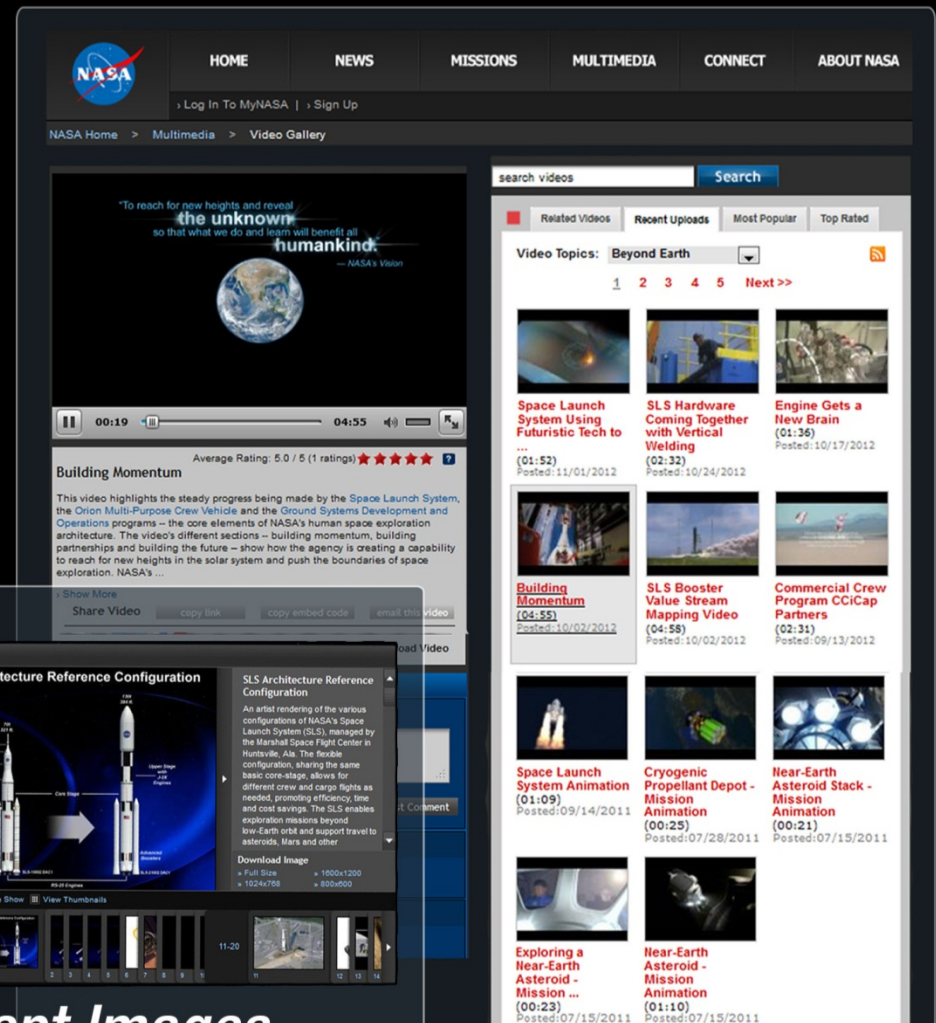
Engaging Interactive Features



Progress and Concept Images



Informative Videos



Exploration Video Products



- “Future Frontier” SLS, On Camera Talent, No Narration, Length: 3:42



- “Building Momentum” Integrated Program Video, Music/SFX, Length: 4:54



Video: America's New Paths in Space



Simulations and Interactives



Space Junk Sammy (Space Operations Learning Center)



Global Exploration Roadmap 50,000 downloads since 09/11



Photosynth™



International Space Station

universe: The International Space Station is a partnership of the U.S., Russian, European, Japanese, and Canadian Space Agencies. The station has been continuously human occupied since Nov 2, 2000. Orbiting 15 times per day at 17,500 miles per hour 250 miles above the ground, it passes over 90% of the world's surface. When complete in 2010, it will weigh over 800,000 pounds and have a crew of 6 conducting research and preparing the way for future exploration to the moon and beyond.



networking mobile app



[View in iTunes](#)

This app is designed for both iPhone and iPad

Free

Category: Games

Released: Oct 04, 2012

Version: 1.0

Size: 32.8 MB

Language: English

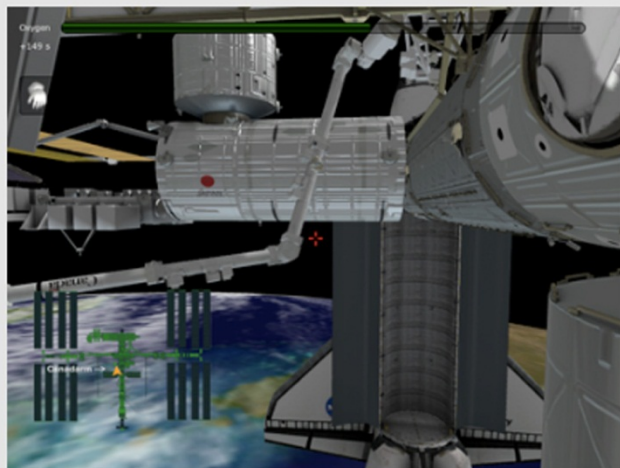
Seller: NASA

© 2012 NASA

Rated 4+

Requirements: Compatible with iPhone 4, iPhone 4S, iPhone 5, iPod touch (4th generation), iPod touch (5th generation), iPad 2 Wi-Fi, iPad 2 Wi-Fi + 3G,

Station Spacewalk Game



Play Now!

Station Space Walk Game

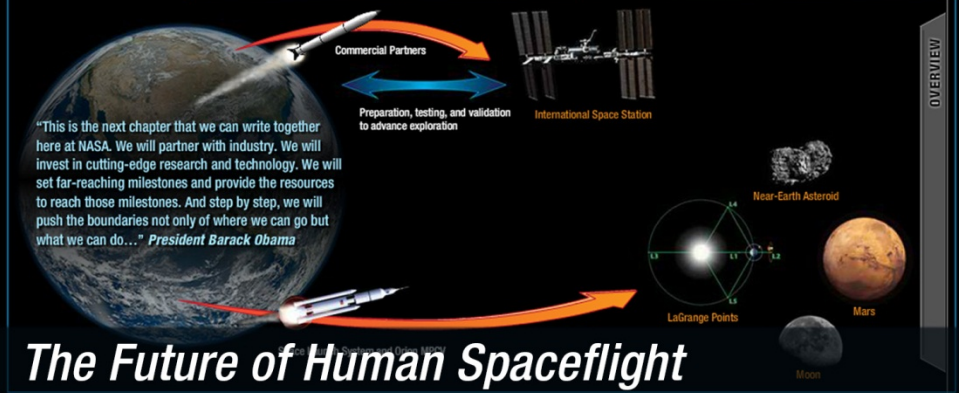
The Future of American Human SPACEFLIGHT

[Download the Human Spaceflight Poster](#)

International Space Station Commercial Vehicles Human Spaceflight Capabilities Future Destinations

"This is the next chapter that we can write together here at NASA. We will partner with industry. We will invest in cutting-edge research and technology. We will set far-reaching milestones and provide the resources to reach those milestones. And step by step, we will push the boundaries not only of where we can go but what we can do..." *President Barack Obama*

The Future of Human Spaceflight Web Interactive



“Spot the Station”



Did you know you can see the International Space Station from your house? As the third brightest object in the sky, after the sun and moon, the space station is easy to see if you know where and when to look for it.

NASA's Spot the Station service sends you an email or text message a few hours before the space station passes over your house. The space station looks like a fast-moving plane in the sky, though one with people living and working aboard it more than 200 miles above the ground. It is best viewed on clear nights. For more information on the International Space Station and its mission, visit the space station mission pages.

Spot the Station is available worldwide to anyone with an email account or SMS-enabled phone. Several times a week, Mission Control at NASA's Johnson Space Center in Houston, TX, determines sighting opportunities for 4,600 locations worldwide. If your specific city or town isn't listed, pick one that is fairly close to you. The space station is visible for a long distance around each of the listed locations.

This service will only notify you of “good” sighting opportunities - that is, sightings that are high enough in the sky (40 degrees or more) and last long enough to give you the best view of the orbiting laboratory. This will be anywhere from once or twice a week to once or twice a month, depending on the space station's orbit. Don't worry if there are big gaps in between sightings! A complete list of all possible space station sightings is available from Johnson Space Center.

Sign Up for Alerts

Select Country

State or Region

City

Extend or De

Received a Co

Enter your code to re

Exam

What w

Sign Up for Alerts

Select Country

State or Region

City

Next

Cancel

**NEWLY
RELEASED
WEB-BASED
APP!**

NASA's 'Spot the Station' service sends you an email or text message a few hours before space station passes over your house.

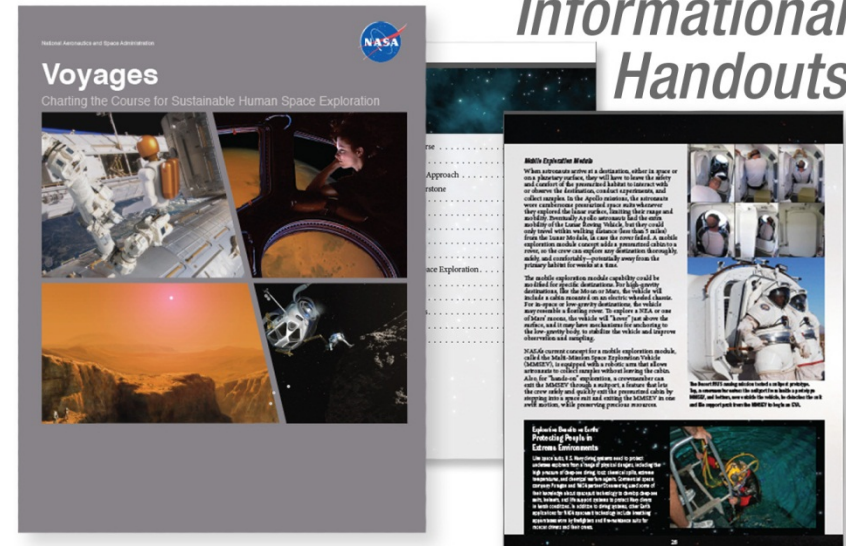
Informational Print Products



Mini Fact Sheets



Informational Handouts



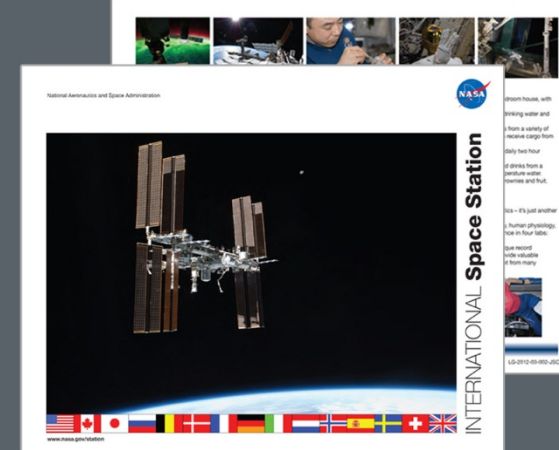
Fact Sheets



Posters



Lithos



Presentations: Mobilizing the Workforce



The HEOMD Ambassador's Program coordinates external speaking engagements while working with NASA Ambassadors to develop presentations suitable for various event settings and target audiences.

Audiences: Children, Stakeholders, General Public

Topic:

The Future of Human Spaceflight

Human Spaceflight Story

Human Spaceflight Status

The Challenges of Human Space Exploration

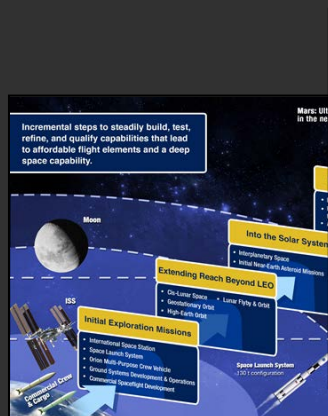
Innovation At Work

Why Do We Explore?

NASA Careers

NASA Kids Club

HEOMD Directorate Overview



2012 Exhibits



Discovery flies over Washington, DC



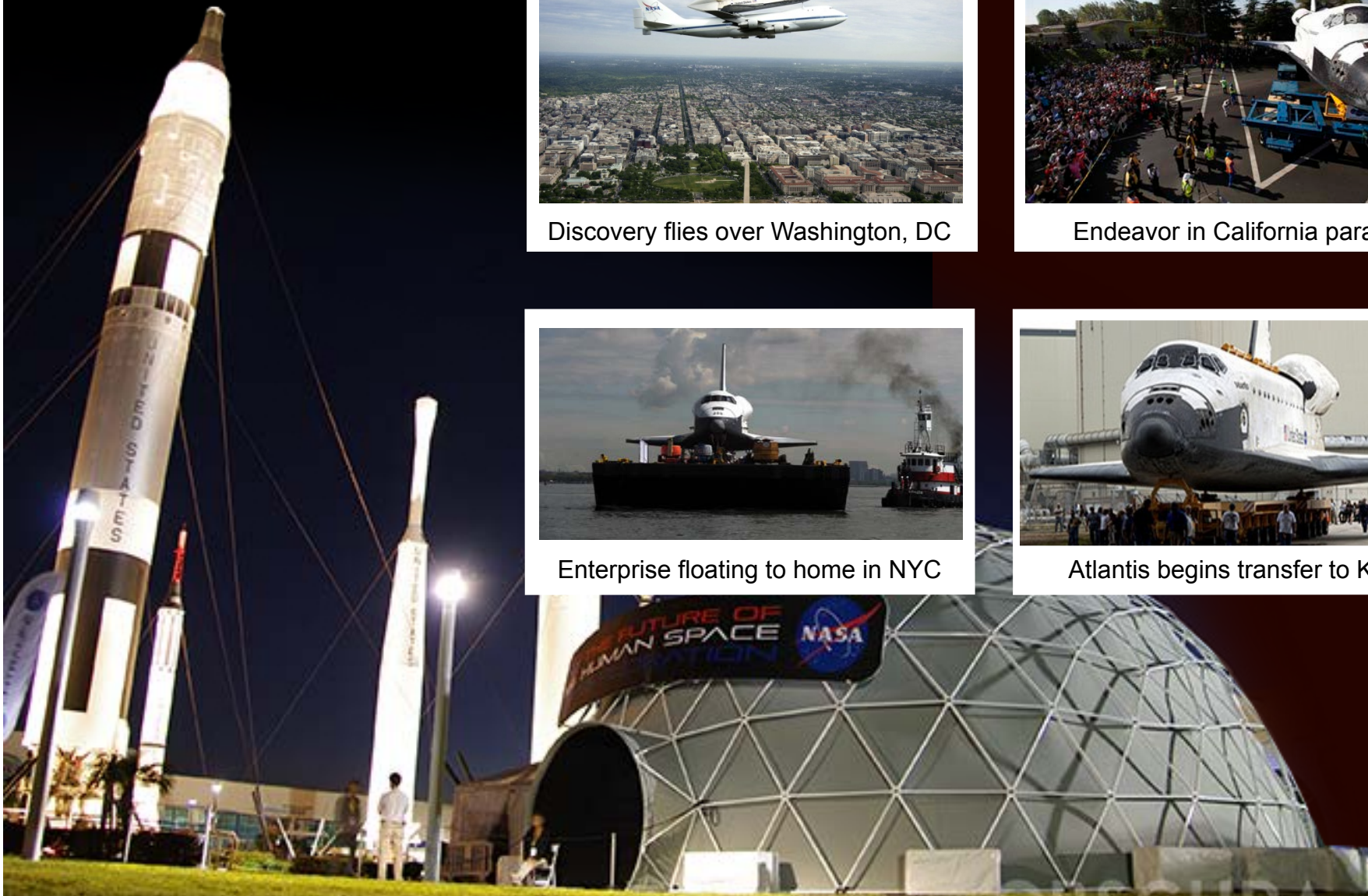
Endeavor in California parade



Enterprise floating to home in NYC



Atlantis begins transfer to KSC



Social Media Distribution



SpaceX Launch to ISS



Google Hangout
between NASA
Administrator and Elon
Musk



Virtual Q&A with Orion
Program Managers
Through Social Media




NASA Social Group Photo at the Goldstone Deep Space Complex in California. October 2012

Mobile Applications



NASA 3D Resources



HOMENEWSMISSIONSMULTIMEDIACONNECTABOUT NASA

Search

[NASA Home](#) > [Multimedia](#) > [3D Resources](#) Send Share

Multimedia

- ▶ Images
- ▶ Videos
- Podcasts
- ▶ NASA TV
- Interactive Features
- 3D Resources**
- RSS Feeds
- Blogs

Search 3D Resources Go

3D Resources


Welcome to the 3D Resources Page

Here you'll find a growing collection of 3D models, textures, and images from inside NASA. All of these resources are free to download and use.

Please read the [Usage Guidelines](#).

Tell us how you're using our models, and let us know what you think: arc-special-proj@lists.nasa.gov.

Latest 3D Resources

Juno[Visit Model Page](#)

Aquarius

IBEX

Mars Odyssey

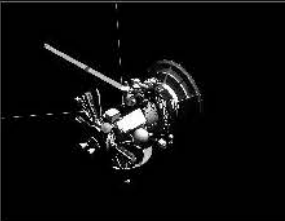
MESSENGER

Mars Global Surveyor

Pioneer

Rosetta

Resources

3D Models

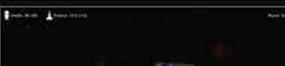
These models are for anybody that uses a 3D software package. Most of the models are in the common .3ds format, which can be read by most 3D programs. Some models, however, are in their original .lwo

[View Gallery](#)

Images and Textures

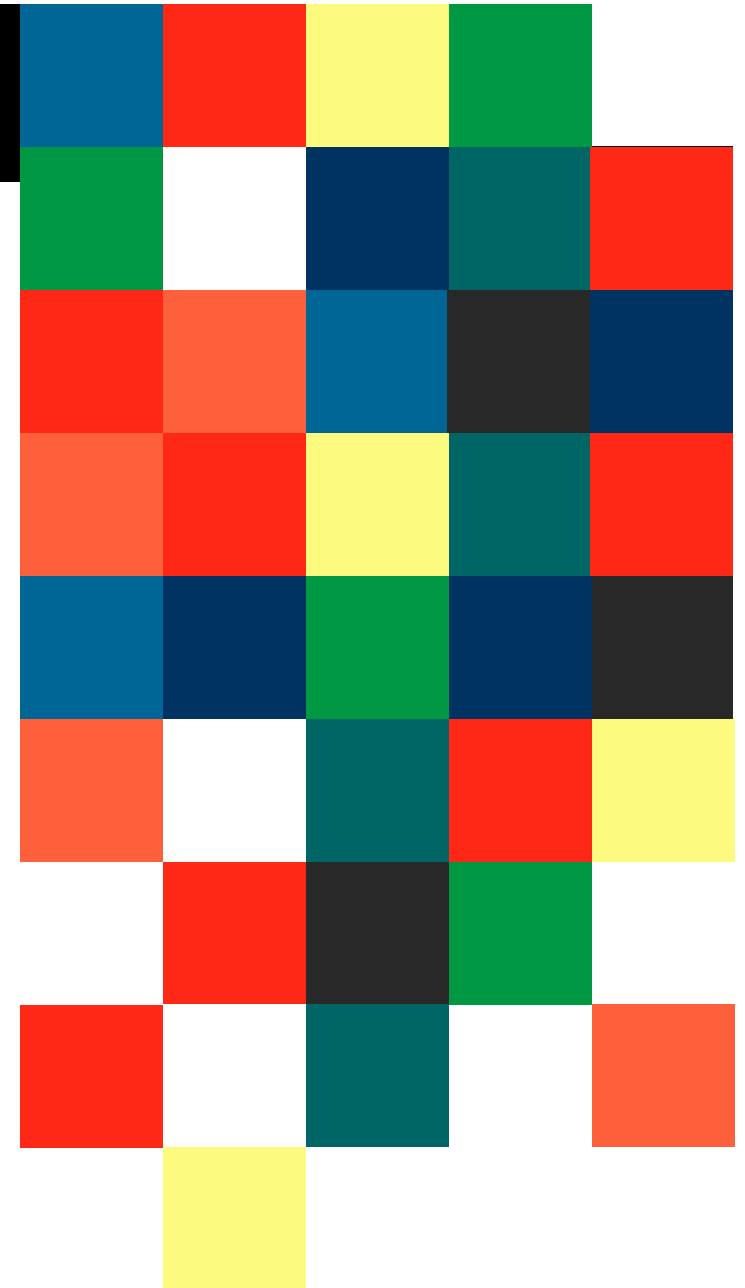
Credits

3D Visualizations

NetworkKing

NetworkKing is a game that allows you to take on the role of Network Manager and puts you in charge of building up a communication network that will...

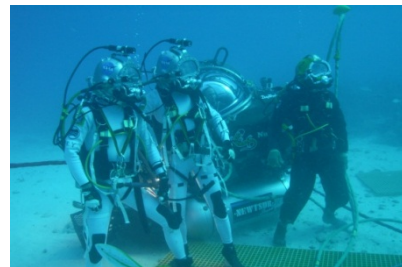
INTERNATIONAL SPACE APPS CHALLENGE



Mission-Based Engagement



We take every opportunity to make our hardware, scientists and engineers available to a broad audience for public engagement purposes.



NEEMO is a NASA analog mission that sends groups of astronauts, engineers and scientists to live in Aquarius, the world's only underwater research station, for up to three weeks at a time. The Aquarius habitat and its surroundings provide a convincing analog for space exploration.



Orion Hardware Tour



American Airlines Center
Dallas, Texas



Our first visitor, Jackson signs the crew
module panel at the Science Museum

Educator Professional Development



NASA's BEST (Beginning Engineering, Science and Technology)



Reduced Gravity Flight for K-12 Educators



Exploration Infusion



Pre-Service Teacher Training

Problem Based Learning



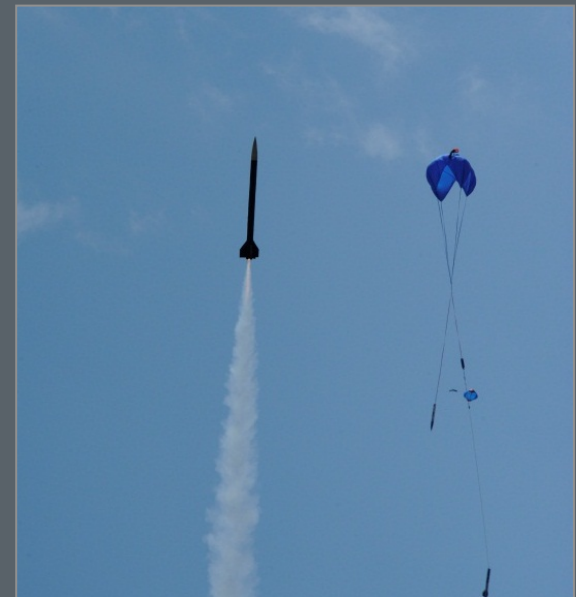
Lunabotics



NASA Great Moonbuggy Race



Rocketry Challenges



NASA Unique Opportunities



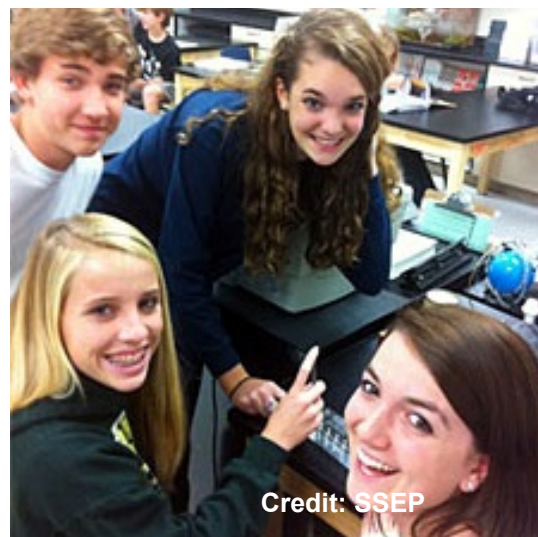
Microgravity University



Nanoracks

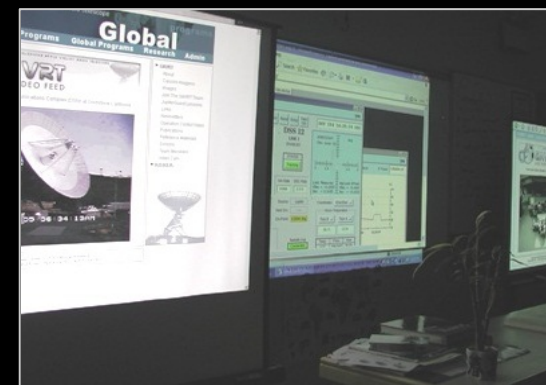


Student Spaceflight Experiment Program (SSEP)



Credit: SSEP

Goldstone Apple Valley Radio Telescope



Zero Robotics Competition (with SPHERES facility)



Diverse Audiences



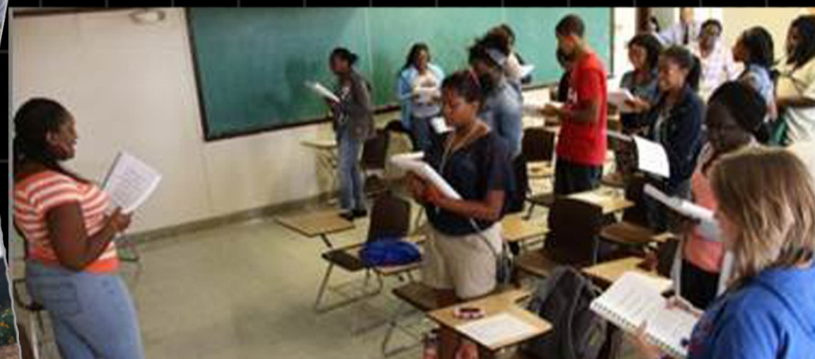
Women In STEM High School Aerospace Scholars



First Nations Rocket and Tribal College Rocket Competitions



National Community College Aerospace Scholars



The Minority Introduction to Technology and Engineering (MITE)

Minorities in Science and (MISE) Engineering

Partnerships



Texas Instruments



Mission X: Train Like An Astronaut

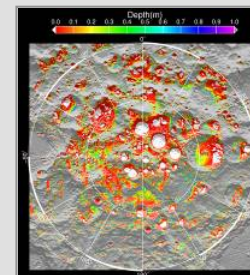


NASA Tournament Lab



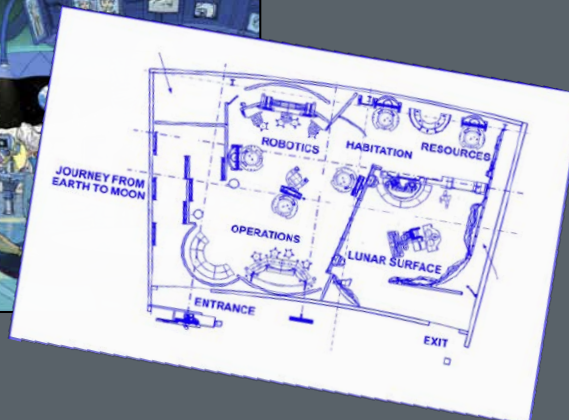
Vehicle Recognition for Pipeline Threats

Planetary Data Accessibility and Applications



Robonaut Tasking and Movement

Museum of Science & Industry (MOSI)





KENNEDY SPACE CENTER

SPACE CENTER HOUSTON

MARSHALL SPACE FLIGHT CENTER

GREAT LAKES SCIENCE CENTER

STENNIS SPACE CENTER

LANGLEY RESEARCH CENTER

JET PROPULSION LABORATORY

- Over 3.2 million paid admissions to NASA Visitor Centers each year
- Coast to coast United States footprint
- Represents one of the most identifiable brands in the world, known for space exploration, advanced technology and advancing the human pioneering spirit

Looking Forward

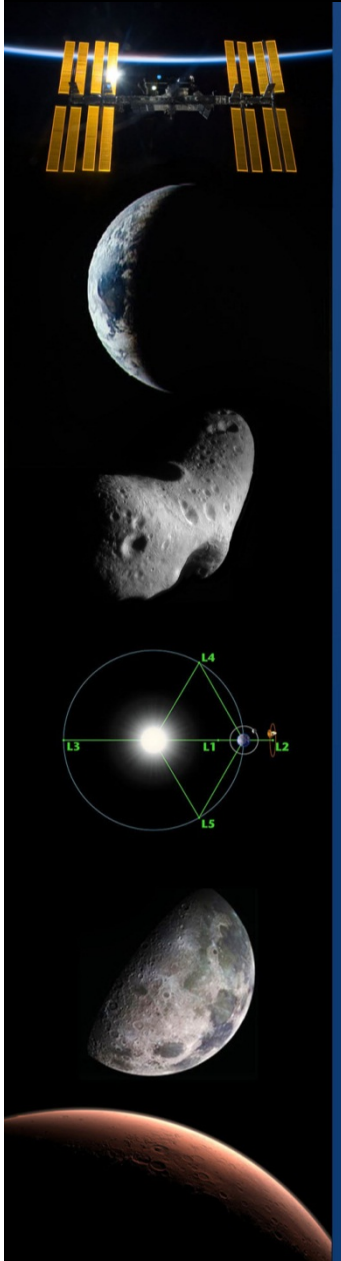
NASA Communications and Education using NPR 7120.5E



HEOMD Transition Activities

- **Discussing new requirements for program and projects with HEOMD Divisions**
 - Divisions will serve as the voice for their programs
- **Establishing HEOMD Education & Communications Frameworks to aid in aligning division, program, and project efforts**
 - Operating Principles
 - Outcomes and Objectives
 - Target Audiences
 - Standard Metrics
- **Discussing requirements with Center Education and/or Communications Directors to ensure collaboration with programs/projects**

Improved Coordination



*The purpose for this change is to **better plan, define, and implement** program and project education and communications activities and ensure all Agency activities in the area of education and public engagement are: **aligned with Agency strategic goals and priorities; outcome driven; and appropriately evaluated for success.** This change reflects my desire that the Associate Administrators for Education and Communications gain adequate insight into all Agency education and communications activities and are able to influence the expenditure of our precious and limited funding to enhance and **more effectively tell our story and inspire the youth of America** to seek studies and subsequent employment in STEM-related areas.*

– Bolden, Sept. 18, 2012 Memo to the OICs



Connect

Watch our progress:

<http://www.nasa.gov/exploration/>

Connect with us through
Your favorite social media:

<http://www.nasa.gov/connect>



Questions?